Member	Agency/Organization	Agency's Interest on Issue	Areas of Expertise
August, Mike	Department of Parks & Recreation	1. We own and operate boats. Most are aluminum and do not require paint but some have paint on the exterior and require maintenance of the surface. 2. We operate docks and have marinas that are under concession. Those facilities house boats that have painted hulls so we may be impacted by the slough or maintenance of those boats. 3. We have had boat facilities for many years and past practices may be a source of impacts that will need attention in the future. We need to know what those possibilies are so we can plan for the needed response if a response is needed.	I am the Departments Industrial Hygienist. I came to this position by being a Registered Civil Engineer and working with fuel tank removals and remediation, shooting range issues, due diligence for acquisitions, operational manual development and hazardous material storage issues. My position was originally established as a result of OSPR and RAPID interaction between departments.
Brown, Paul	Unifield Port District of San Diego	The Port of San Diego (Port), is a State Trustee of Tidelands on San Diego Bay, which includes over 8,000 recreational boats. The Port is involved in the protection and enhancement of San Diego Bay's resources, including its water quality. The bay has been shown to exceed water quality standards for dissolved Cu attributable in large part to Copper antifoulant paint. The Port and its tenant marinas are under a TMDL enforcement program from the San Diego Regional Water Quality Control Board to reduce Copper discharges in Shelter Island Yacht Basin by 76 % over a 17-year period.	
		The Port is currently preparing a study of Copper discharges and impacts related to in water hull cleaning. The Port and the Shelter Island Yacht Basin tenets are also forming a TMDL required program to implement education, BMP and monitoring programs. The Port is continuing to request the State address the copper antifoulant issue on a statewide basis. Only through Statewide action can the copper issue which appears to occur in marinas throughout the State, be comprehensively and effectively addressed.	
Candelaria, Linda	RWQCB 8 (Santa Ana Region)	Newport Bay is 303D listed for metals, and the Santa Ana Regional Water Quality Control Board (R8) is developing a Metals TMDL for Newport Bay, which includes Cu. The major sources of Cu have been identified as Cu leached from boat paints and stormwater runoff. There are approximately 10,000 boats in Lower Newport Bay so the amount of Cu leached from boat paints is substantial, therefore, R8 is interested in the potential regulation of Cu antifouling boat paints to reduce Cu inputs to Newport Bay (and other coastal bays which are 303D listed for metals). We are currently starting a Metals Marina study to check metal levels in marina waters and sediments. We are also interested in coordinating w/other regions and agencies on this effort and to keep current on ongoing studies.	Soil & Aquatic Chemistry w/emphasis in Metal Chemistry (PhD) - lab & field experience/manuscripts/presentations; Bacterial Monitoring/Study Design-water/sediment, Water Quality Monitoring/Studies - especially estuarine/coastal studies, TMDL Development & Implementation, Environmental Monitoring, Water Quality Laws/Regulations
Dobalian, Lesley	RWQCB 9 (San Diego Region)	The San Diego Regional Water Quality Control Board developed a TMDL for dissolved copper in the Shelter Island Yacht Basin, San Diego Bay. The vast majority of copper entering the yacht basin is from copper-based antifouling paints applied to the recreational vessels moored there. Controlling this source is the key to meeting dissolved copper water quality criteria and protecting the beneficial uses in the waterbody. It is likely that other marinas with a high density of recreational vessels moored in yacht basins or other areas of low tidal flushing will also have elevated copper levels in the water column and possibly the sediment. Additional waterbodies in San Diego Bay will likely be listed on the 2004 303(d) list of Water Quality Limited Segments for dissolved copper.	Ecotoxicology, and Environmental Laws/Regulations
Edwards, Diane	State Water Resources Control Board	The SWRCB is a lead agency (in partnership with the California Coastal Commission) for development and implementation of the "Plan for California's Nonpoint Source Pollution Control Program". The intent of the NPS Program is to prevent or reduce/minimize nonpoint source pollution from entering the State's waters. One of the pollution categories covered by the NPS Program is runoff from marinas and recreational boating activities. The SWRCB formed a statewide Marinas and Recreational Boating Workgroup to coordinate state agency activities and efforts in addressing NPS pollution for this category. One of the goals for this category is to minimize the use of potentially harmful hull cleaners and bottom paints, and prohibit discharges of these substances to State waters.	Nonpoint source pollution problems from marinas and recreational boaters.
Gonzalez, Jamie	UC Sea Grant	The University of California Sea Grant Extension Program has conducted research and educational outreach on the issues of copper antifouling paint pollution, alternatives to copper-based antifouling paints, and the economics of switching to a nontoxic coating. We have provided seminars in the San Diego area concerning these issues to help boaters transition to using nontoxic coatings in light of the potential regulations or restrictions on copper-based anitfouling paints. We are interested in what is going on throughout the rest of the state concerning the use of antifouling paints and the levels of dissolved copper in state water bodies.	Marine and Environmental Policy; Outreach and Education

Kubiak, Rachel	Department of Pesticide Regulation	As a member of the Registration Branch I have a direct working relationship with many companies that register boat paints in California. Our Branch is involved for 2 reasons: 1) to provide input when necessary at group meetings regarding the companies in question, registration issues, etc. and 2) to act as a liaison between the Branch and the group such that we can be involved and educated in any area that might lead to a change in policy or how boat paints are regulated.	Registration laws, regs, process, etc. at both the federal and state level.
Lee, Marshall	Department of Pesticide Regulation	The Department of Pesticide Regulation is California's lead agency for regulating the sales and use of pesticides, which include metal-based antifoulant paints. Its mission is to protect human health and the environment by regulating pesticide sales and use and by fostering reduced risk pest management. In its management agency agreement with the State Water Resources Control Board, DPR agreed to work cooperatively with the State and Regional Boards to address issues related to pesticides and water quality.	Environmental monitoring, environmental laws and regulations, and pest management.
Matuk, Vivian	California Coastal Commission	Based on the mandate of the California Coastal Act which charges the Coastal Commission with both protecting the ecological resources of California's Coastal Zone and with encouraging recreational uses of the coast. Furthermore, the Commission, in partnership with the State Water Resources Control Board, is charged with implementing the Coastal Non-Point Source Pollution Control Plan mandated under federal law (the Coastal Zone Act Reauthorization and Amendments). The Commission realized a need to encourage clean boating practices in a state where boating has increased commensurate with increases in state population. From the California Coastal Commission's Boating Clean and Green Campaign, your sub-group provides important information to educate the boating community and marinas about what are the best-recommended practices with respect to the copper antifouling issue.	Education and technical assistance.
Moran, Kelly	TDC Environmental Representing RWQCB 2 (San Francisco Bay Region)	The San Francisco Bay Regional Water Quality Control Board's (Region 2's) mission is to ensure the highest reasonable quality for waters of the San Francisco Bay watershed. To this end, it regulates pollutant discharges and develops and implements plans to restore clean water in water bodies that do not meet water quality standards. Copper has been of ongoing environmental concern in San Francisco Bay since the mid-1980s, because elevated water column concentrations may impair aquatic uses in the Bay by producing either acute or chronic toxicity in sensitive aquatic organisms, and there is some evidence of toxicity to benthic organisms likely attributable to copper. Region 2 is currently developing a water quality attainment strategy (WQAS) for copper that will include specification of control measures for all copper sources. A regional analysis of copper sources found that marine antifouling paint has the potential to be a meaningful copper source. This estimate is based on extrapolation from southern California data (we have no local studies). We intend to address this source in the upcoming Copper WQAS.	Water quality, copper sources, Environmental Monitoring, and Environmental Laws/Regulations
Rivera, Ignacio	U.S. Navy SPAWAR	Due to the extensive use of antifouling paints, the U.S. Navy isconsidered a contributor of copper to many harbors. The U.S. Navy complies with regulations on active antifouling components, mainly copper. SPAWAR Systems Center, San Diego (SSC SD) has a comprehensive research and development program for testing copper coatings. In addition, SSC SD maintains programs that support the development of site specific Water Quality Standards (WQS), scientifically-defensible Total Maximum Daily Loads (TMDLs) and regulation through Uniform National Discharge Standards Program (UNDS) are to achieve compliance with respect to copper point source and non-point source Navy's discharges to harbors. Finally, SSC SD has extensive experience in measurement and modeling of copper in harbors.	My work focuses on heavy metals in aquatic environments. This includes the determination of heavy metal concentration in discharges, in situ and in real time. I also work on the relationship between chemicalspeciation, toxicity and complexation capacity of copper in coastal embayments. My publications include analytical techniques for the measurement of free copper ion and copper complexation capacity in seawater, determination specific water quality criteria in coastal embayments, modeling of toxic effects of heavy metal inputs in bays, techniques for the measurement of heavy metal concentrations in porewaters, gradients and diffusion of heavy metals from porewaters in the sediments, distribution of heavy metals in the colloidal fraction in estuaries, and isotopic and concentration distribution of heavy metals in open ocean.
Singhasemanon, Nan	Department of Pesticide Regulation	DPR regulates the sale and use of pesticides in California. The California Food & Agricultural Codes contain various provisions that direct DPR to protect the environment from environmentally harmful pesticides by prohibiting, regulating, or ensuring proper stewardship of those pesticides. Frequent detections of dissolved copper levels above California Toxics Rule standards at the Shelter Island Yacht Basin and the linkage of copper antifouling paint use to these elevated levels suggest that copper antifouling paint products may be environmentally harmful pesticides. Thus, DPR is interested in assessing the extent of water quality and environmental impacts associated with the use of these pesticides.	Environmental Monitoring, Ecotoxicology, and Environmental Laws/Regulations

Sniderman, Lisa	California Coastal Commission	California's coastal program protects water quality through management of development that generates runoff or creates spills. The Coastal Commission certifies Local Coastal Programs (LCPs) and approves coastal development permits and federal projects consistent with policies of the California Coastal Act. Further, Section 6217 of CZARA requires the Commision, in partnership with the State water quality program, to implement specified management measures to control polluted runoff.	Land-use planning, water quality, agency coordination, watershed management; coastal issues; project-specific water quality technical assistance, e.g., recommended management measures and best management practices; local government assistance, etc., implementation of California's NPS Program; Critical Coastal Areas program
		The Coastal Commission and State Water Board are partners in the development and implementation of California's Nonpoint Source Program Plan ("Plan for California's Nonpoint Source Pollution Control Program"). Marinas and Recreational Boating is one of the NPS categories included in the Plan. The Plan includes 16 management measures for reducing nonpoint source pollution from marinas and recreational boating activities. Water quality staff has been an active participant in the Marinas IACC subcommittee and has been lead on developing a Management Measure tracking strategy for key marina management measures. The copper workgroup provides a forum for staff to keep updated on latest water and sediment quality trends as well as discuss and promote management practices and alternatives for addressing copper impacts from antifouling paints and other sources.	
Yee, Betty	RWQCB 5 (Central Valley Region)	The Central Valley Water Board's interest is in protecting the beneficial uses of the waters within its jurisdictional boundaries. While copper from antifiouling paints has not been identified as a source of impairment in the Region, there has not been adequate monitoring to say this potential impairment source is not causing any problems.	The Water Board's area of expertise is in water quality monitoring and regulation of waste discharges. My area of expertise is in water quality planning, watershed management and working with nonpoint sources with peripheral experience in special studies and a plethora of Board programs.